problems of the relations between molecules, the chemists were more concerned with the relations between the atoms composing the molecule. And they for a time made use of the admitted fiction that the atoms were provided with little hooks, varying in number according to the 'valences' of the atoms, The modern science of physical-chemistry seeks to bring the more realistic descriptions of the physicist to the aid of the chemist, and to identify the physicists' atom with the chemists'. The attainment of this very desirable goal has been facilitated by the resolution of the atom into a swarm of particles, the protons and the electrons; and much progress has been made in the direction of explaining the differences between the chemical elements in terms of different groupings of electrons and protons. What these entities or units are —whether they are particles of negative or positive electricity, or whether they are particles of something else, each of which carries a charge of negative or of positive electricity—is not a matter of agreement. And perhaps it is a question of no great importance. The recent tendency has been to abolish the ether, that universal medium which had proved itself so useful that some physicists had declared it to be the most real of all things with which we have acquaintance; and to seek to explain all physical and chemical events in terms of the finer atomism of electrons and protons, supplemented by a number of newly invented or discovered entities—the neutron, the positron, the photon, the quanta of energy.

This involves a return to the corpuscular theory of light
and the discarding of all the advantages of the undulatory
theory; or alternatively the combination of the two in the
doctrine of the wavicle; one which surely outdoes the
ether in respect of impossible combination of properties !